Claims

1. A process for producing an alkoxy-(tetrazol-1-yl)benzaldehyde compound represented by Formula (2):

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$$\begin{array}{ccc}
A_1 & N = N \\
N & N
\end{array}$$

$$\begin{array}{ccc}
A_2 & (2)
\end{array}$$
CHO

wherein A^1 is an alkoxy group, and A^2 is a hydrogen atom, alkyl group or fluorine-substituted alkyl group,

the process comprising reacting a 1-(alkoxyphenyl)-1H-tetrazole compound represented by Formula (1):

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$$A^{1} \stackrel{N=N}{\underset{A^{2}}{\bigvee}} A^{2} \qquad (1)$$

wherein ${\bf A}^1$ and ${\bf A}^2$ are as defined above, with hexamethylenetetramine in a sulfonic acid solvent, followed by hydrolysis.

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- 2. The process according to claim 1, wherein the sulfonic acid solvent is a mixed solvent of methanesulfonic acid and trifluoromethanesulfonic acid.
- 3. The process according to claim 1, wherein hexamethylenetetramine is used in an amount of 1.0 to 3.0 mol per mol of the 1-(alkoxyphenyl)-1H-tetrazole compound.
- 4. The process according to claim 1, wherein A^1 is a 30 methoxy group, and A^2 is a hydrogen atom, methyl group, ethyl group or trifluoromethyl group.
 - 5. A process for producing a 4-alkoxy-3-(tetrazol-1-yl)benzaldehyde compound represented by Formula (4):

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$$\begin{array}{cccc}
A^1 & N=N \\
N & N
\end{array}$$

$$\begin{array}{cccc}
A^2 & (4)
\end{array}$$

wherein A^1 is an alkoxy group, and A^2 is a hydrogen atom, alkyl group or fluorine-substituted alkyl group,

the process comprising reacting a 1-(2-alkoxyphenyl)-1H-tetrazole compound represented by Formula (3):

$$\begin{array}{cccc}
A^1 & N=N \\
N & N
\end{array}$$

$$A^2 \qquad (3)$$

wherein A^1 and A^2 are as defined above, with hexamethylenetetramine in a sulfonic acid solvent, followed by hydrolysis.

6. A process for producing a 2-alkoxy-4-(tetrazol-1-yl)benzaldehyde compound represented by Formula (6):

$$\begin{array}{c}
N=N \\
N \\
N \\
N
\end{array}$$
OHC
$$\begin{array}{c}
N=N \\
N \\
A^2
\end{array}$$
(6)

wherein A^1 is an alkoxy group, and A^2 is a hydrogen atom, alkyl group or fluorine-substituted alkyl group,

the process comprising reacting a 1-(3-alkoxyphenyl)-1H-tetrazole compound represented by Formula (5):

$$A^{1} \bigvee_{A^{2}}^{N=N} \bigvee_{A^{2}}^{N} (5)$$

wherein A^1 and A^2 are as defined above, with hexamethylenetetramine in a sulfonic acid solvent, followed by hydrolysis.

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7. A process for producing a 2-alkoxy-5-(tetrazol-1-yl)benzaldehyde compound represented by Formula (8):

$$A^{1} \xrightarrow{N=N \\ N} A^{2}$$
 (8)

wherein ${\tt A}^1$ is an alkoxy group, and ${\tt A}^2$ is a hydrogen atom, alkyl group or fluorine-substituted alkyl group,

10 the process comprising reacting a 1-(4-alkoxyphenyl)1H-tetrazole compound represented by Formula (7):

$$\begin{array}{ccc}
N=N \\
N & N \\
A^2
\end{array} (7)$$

wherein ${\bf A}^1$ and ${\bf A}^2$ are as defined above, with hexamethylenetetramine in a sulfonic acid solvent, followed by hydrolysis.

8. An alkoxy-(tetrazol-1-yl)benzaldehyde compound represented by Formula (2):

$$\begin{array}{ccc}
A_1 & N = N \\
N & N
\end{array}$$

$$\begin{array}{ccc}
A_2 & (2)
\end{array}$$

wherein A¹ is an alkoxy group, and A² is a hydrogen atom, alkyl group or fluorine-substituted alkyl group, with the proviso that the compound is not a 2-alkoxy-5-(tetrazol-1-yl)benzaldehyde compound represented by Formula (8):

$$A^{1} \xrightarrow{\text{CHO}} A^{2} \qquad (8)$$

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wherein A^1 and A^2 are as defined above.

- 9. The alkoxy-(tetrazol-1-yl)benzaldehyde compound according to claim 8, wherein the aldehyde group is in an ortho or para position relative to A^1 .
- 10. A 4-alkoxy-3-(tetrazol-1-yl)benzaldehyde compound represented by Formula (4):

 $\begin{array}{cccc}
A^1 & N=N \\
N & N
\end{array}$ $A^2 & (4)$

wherein A^1 is an alkoxy group, and A^2 is a hydrogen atom, alkyl group or fluorine-substituted alkyl group.

11. A 2-alkoxy-4-(tetrazol-1-yl)benzaldehyde compound represented by Formula (6):

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wherein A^1 is an alkoxy group, and A^2 is a hydrogen atom, alkyl group or fluorine-substituted alkyl group.